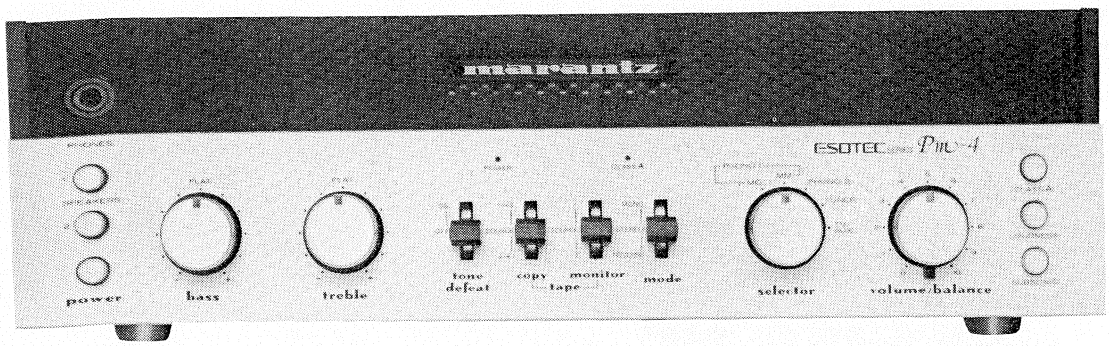
SERVICE MANUAL *Pm-4*

marantz

ESOTEC SERIES

Model Pm-4

Stereo Pre Main Amplifier



◇特　長

■MAINアンプ

MAINアンプはデュアルFETローノイズデュアルトランジスタ、ハイ f_T パワートランジスタなどの高性能能動素子を使用し、マランツ独特のプッシュプル増幅に依リオープンループ特性を改善し、マランツ独自の2ポール位相補正回路に依リ高周波領域まで歪の少い波形伝送とTIM歪の低減を徹底的に進めた回路方式を取り入れています。さらに電源回路にも各チャンネルそれぞれに厳選された、オーディオ用電解コンデンサを使用し物理特性の良さをあます所なく引き出す事ができる様にしました。

入力段にはペア特性の良いデュアルFETに依るソースフォロアアンプを使い入力段のインピーダンス変化に依る特性悪化を防いでいます。

インピーダンスを下げた信号はデュアルトランジスタに依る差動アンプで増幅され、それぞれの差動出力は2段目のプッシュプル増幅段に入ります。電力増幅段には新開発のスーパーハイ f_T（70～90MHz）のパワートランジスタを使用しスイッチング歪を低減しております。

出力段のバイアス回路を切換える事に依り純Aクラス15W（8Ω）、ABクラス60W（8Ω）に切換える事ができる様にしました。

■PHONOアンプ

Pm-4のPHONOアンプは2系統の入力端子を持ち、PHONO 1はMC又はMMカートリッジ、PHONO 2はMM専用となっております。特にMCカートリッジの性能をフルに引き出す事ができる様にローノイズ・ハイゲインにして、かつマランツ独自のTIM歪、高調波歪の低減を計った回路構成になっております。

初段には r_{bb} の低い超ローノイズトランジスタを使い温度に依るドリフトを補正しS/Nの良い平衡出力を取り出す差動増幅回路を用い、二段目のカレントミラー差動増幅回路は充分なゲインを得ると共に一種のプッシュプル回路の動作をし偶数次高調波を低減させています。出力段はAB級動作のSEPPで構成され低インピーダンス負荷に対しても低歪にして充分なドライブ性能を確保しています。

■トーンコントロールアンプ

トーンコントロールアンプは20dB（10倍）の電圧利得をもち音質を変化させずに、MAINアンプ信号を伝送しております。又トーンコントロール素子を回路から切離しフラットアンプにする事を可能にするトーンディフィートスイッチを付属させました。

⊠調整方法

1．DCオフセット調整
SP. OUT で DC が 0mV になるように R729, R730（20KΩ）を調整します。

2．バイアス調整
（注） バイアス調整は CLASS “A” から調整願います。

(1) CLASS “A”
TP1 −TP3，TP2 −TP4 間の電圧が 1分後 350mV になるように R753, R754 を調整します。
この調整値は見込調整であり、安定後の値は 320mV です。

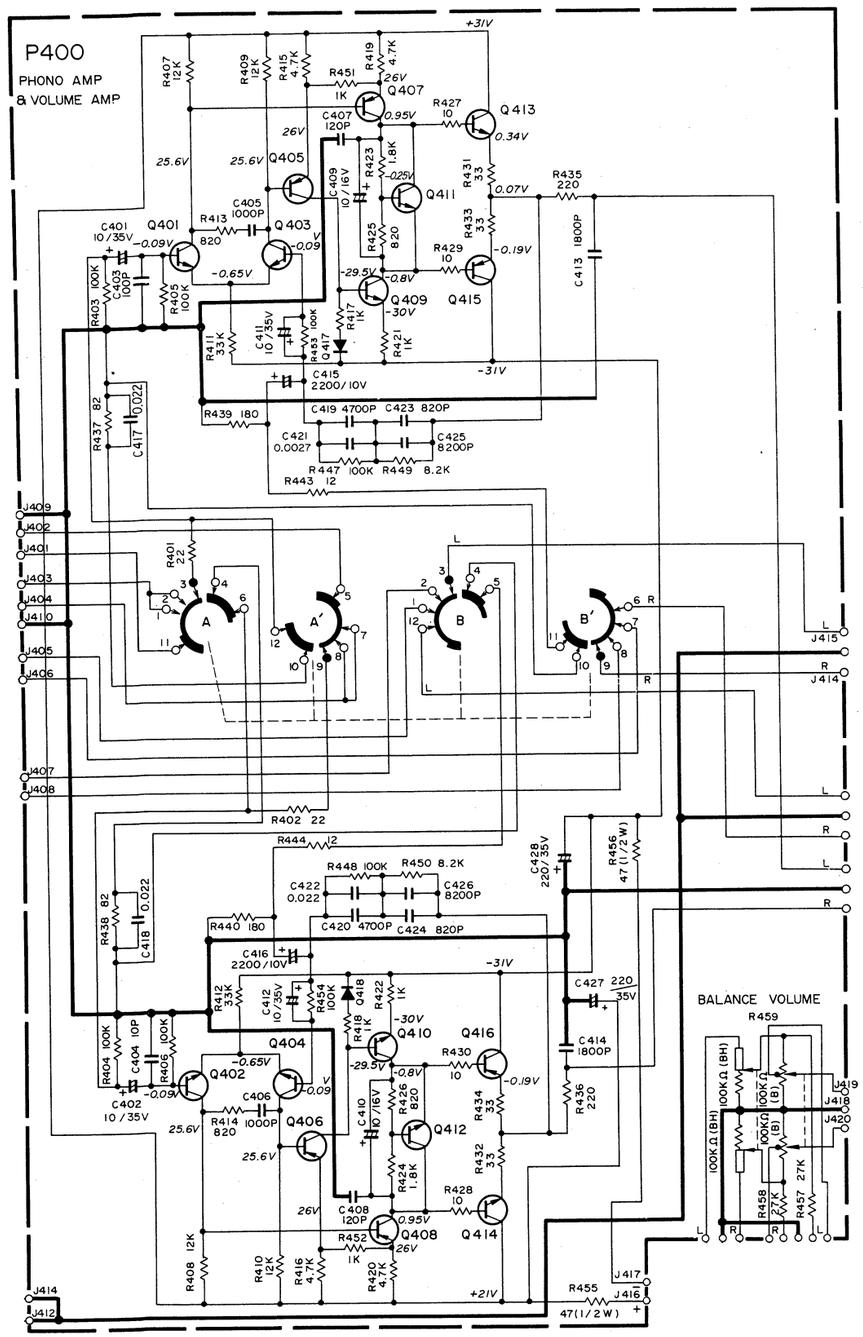
(2) CLASS “B”
同じく 1分後10mV になるように R751, R752 を調整します。
この調整値は見込調整であり、安定後の値は 13mV です。

⊠サービスに必要な測定器

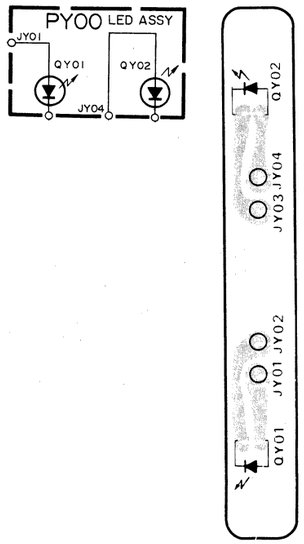
項　　目	使　　用　　法
歪　　率　　計	アンプ出力の歪を測定する。
低 周 波 発 振 器	正弦波および矩形波の信号源として使用する。
オ ッ シ ロ ス コ ー プ	波形分析およびトラブル・シューティングに使用する。
V　T　V　M	電圧および抵抗値の測定に使用する。
交流ワット・メーター	アンプの一次側消費電力をモニターする。
電 源 電 圧 計	アンプの一次側電源電圧をモニターする。
ス ラ イ ダ ッ ク（0～140VAC，10A）	アンプの一次側電圧を調節する。
シ ョ ー ト 用 プ ラ グ	雑音を拾わないようにアンプ入力を短絡するのに使用する。
出 力 負 荷 抵 抗（8Ω±0.5%，250W）	アンプの出力に 8Ω の負荷を与える。
出 力 負 荷 抵 抗（4Ω±0.5%，250W）	アンプの出力に 4Ω の負荷を与える。

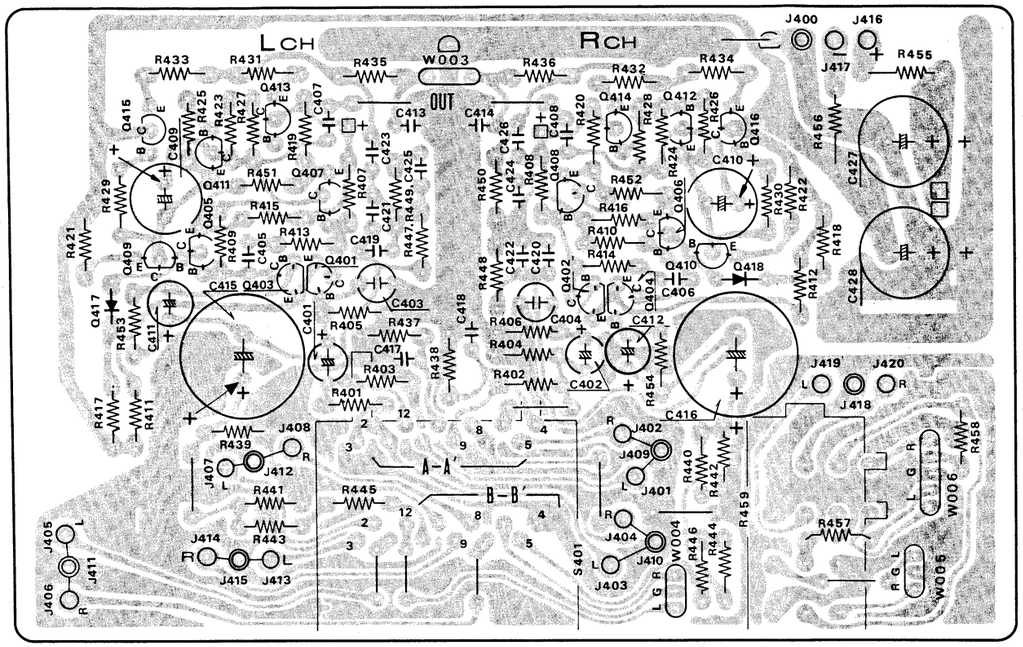
◇回路図と基板

Pre Amp Assembly (P400) Schematic Diagram and Component Locations

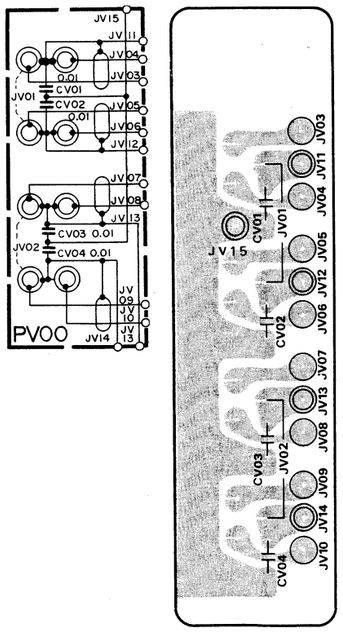


Indicator Assembly (PY00) Schematic Diagram and Component Locations

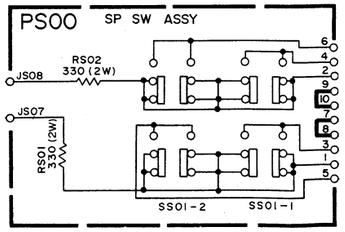


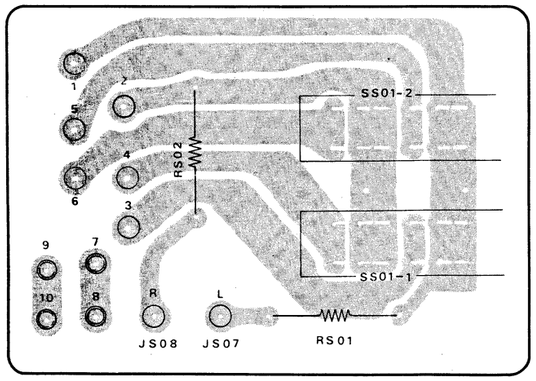


Phono Input Assembly (PV00) Schematic Diagram and Component Locations

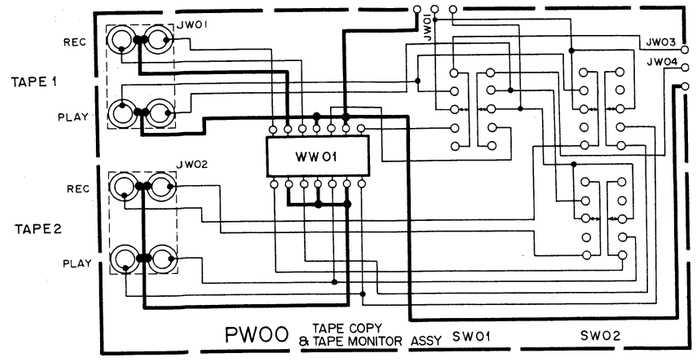


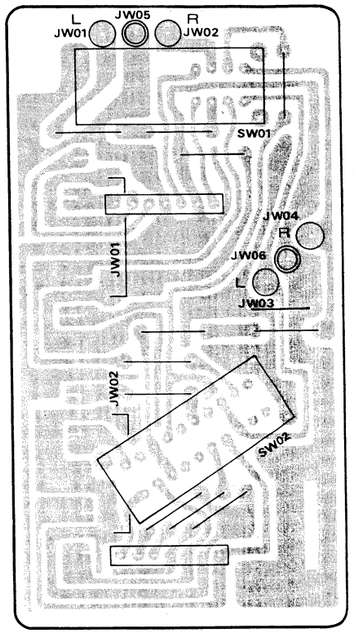
Speaker Switch Assembly (PS00) Schematic Diagram and Component Locations



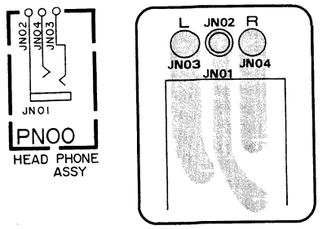


Tape Input Assembly (PW00) Schematic Diagram and Component Locations

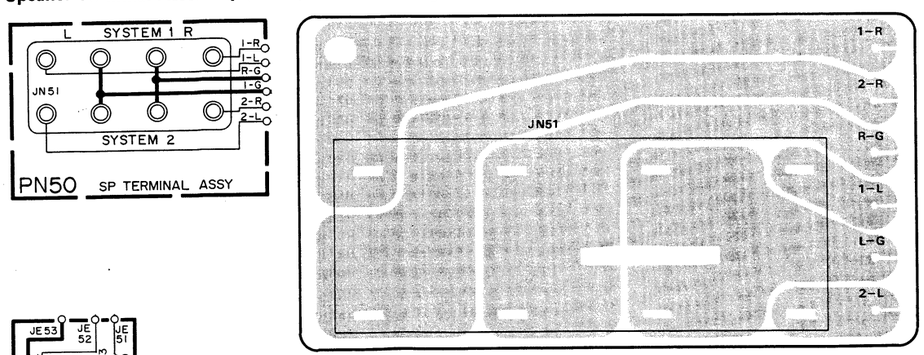




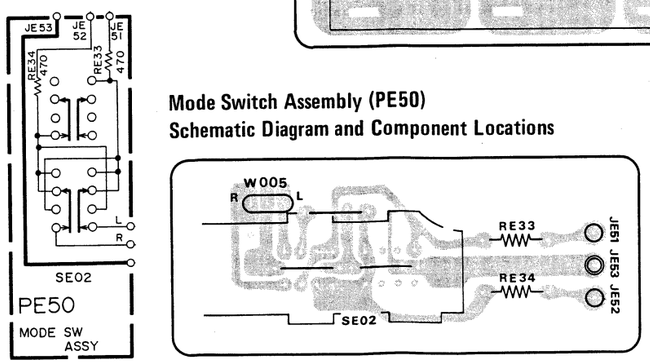
Head Phone Jack Assembly (PN00) Schematic Diagram and Component Locations



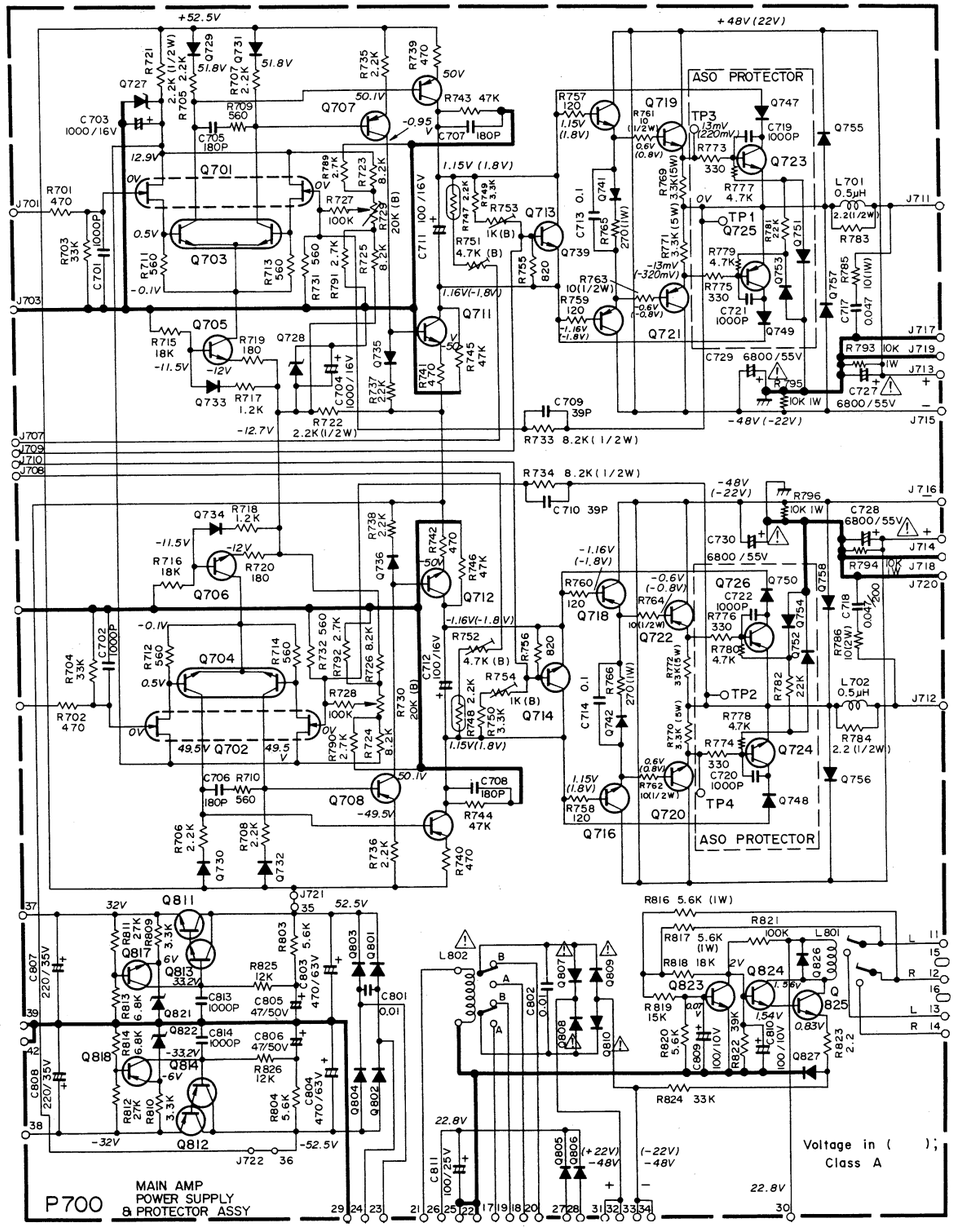
Speaker Terminal Assembly (PN50) Schematic Diagram and Component Locations

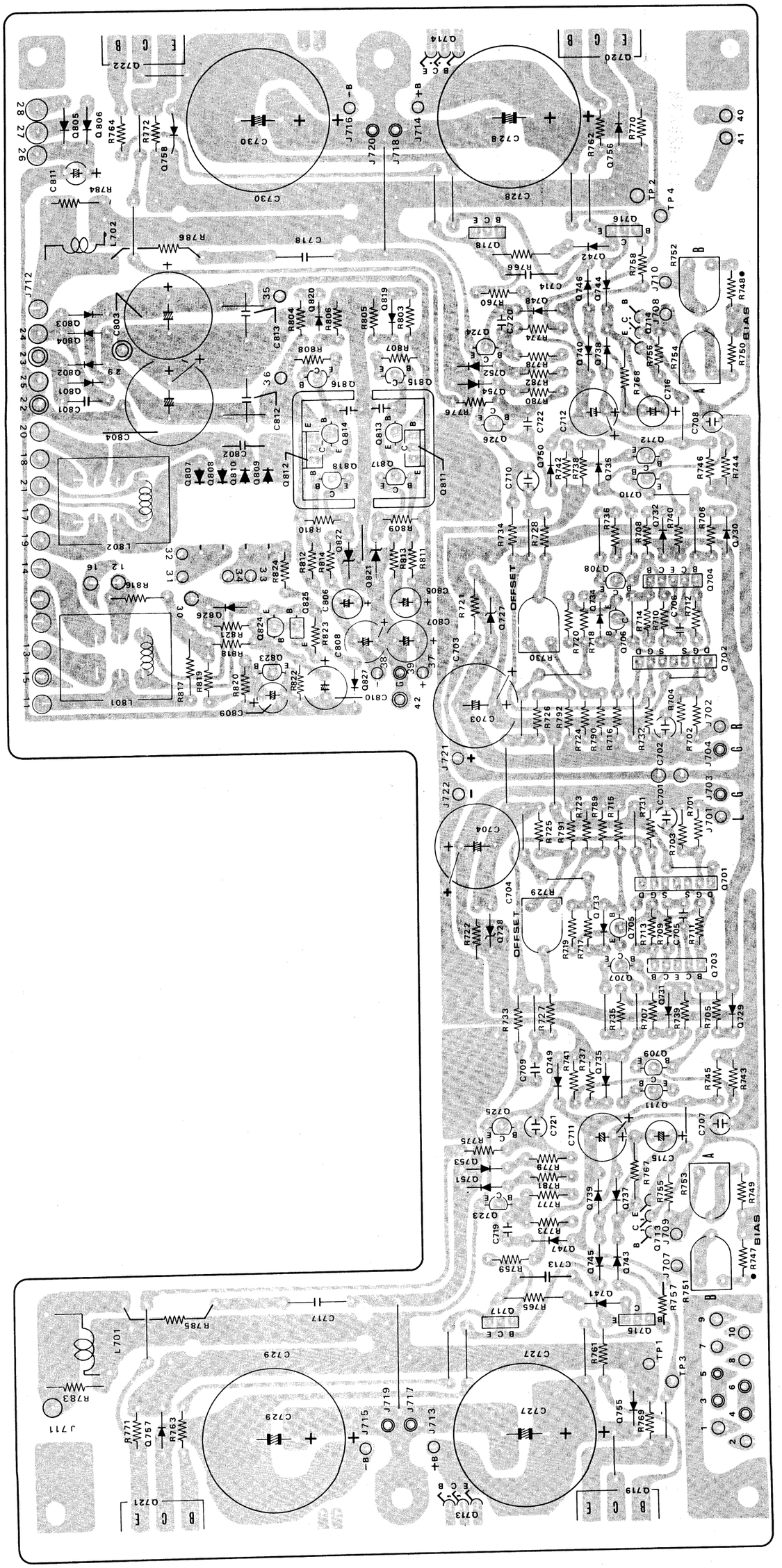


Mode Switch Assembly (PE50) Schematic Diagram and Component Locations

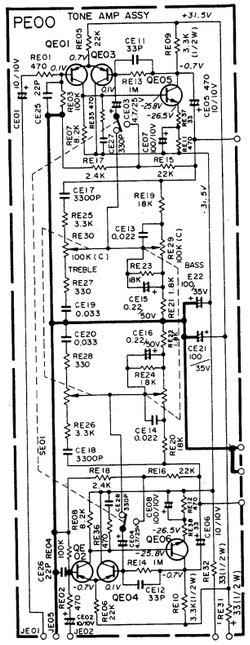


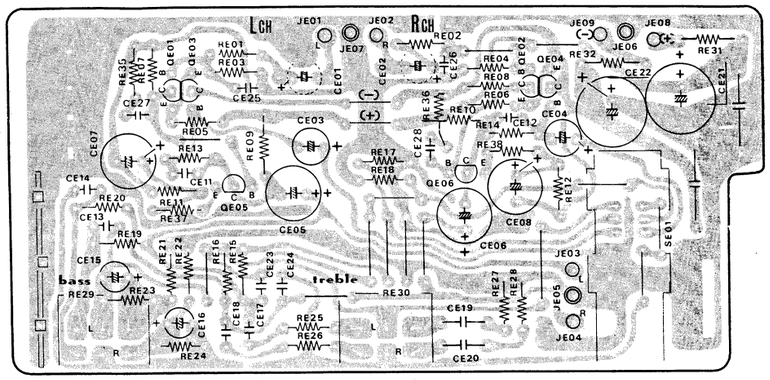
Main Amp Assembly (P700) Schematic Diagram and Component Locations



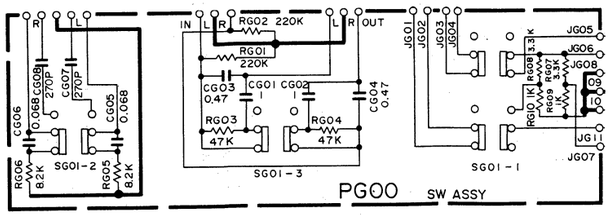

OFFSET
OFFSET
BIAS
BIAS

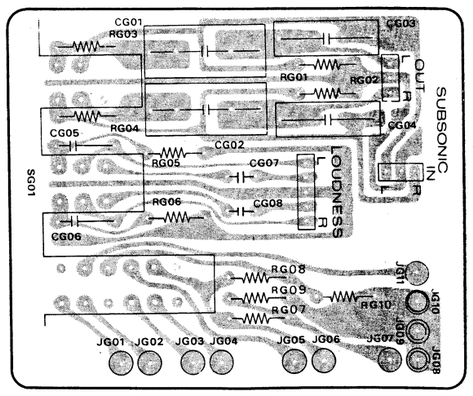
Tone Amp Assembly (PE00) Schematic Diagram and Component Locations



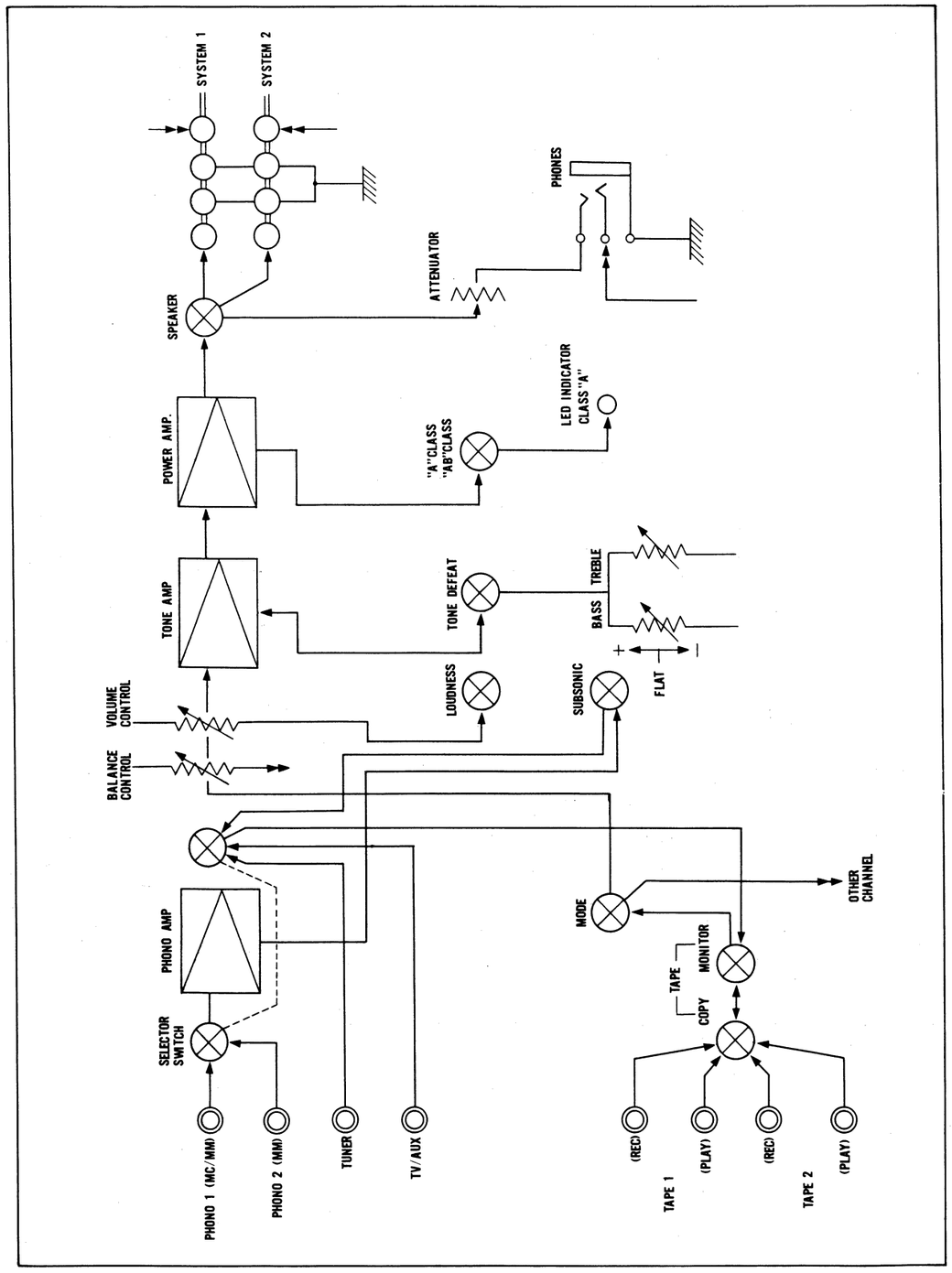


Switch Assembly (PG00) Schematic Diagram and Component Locations



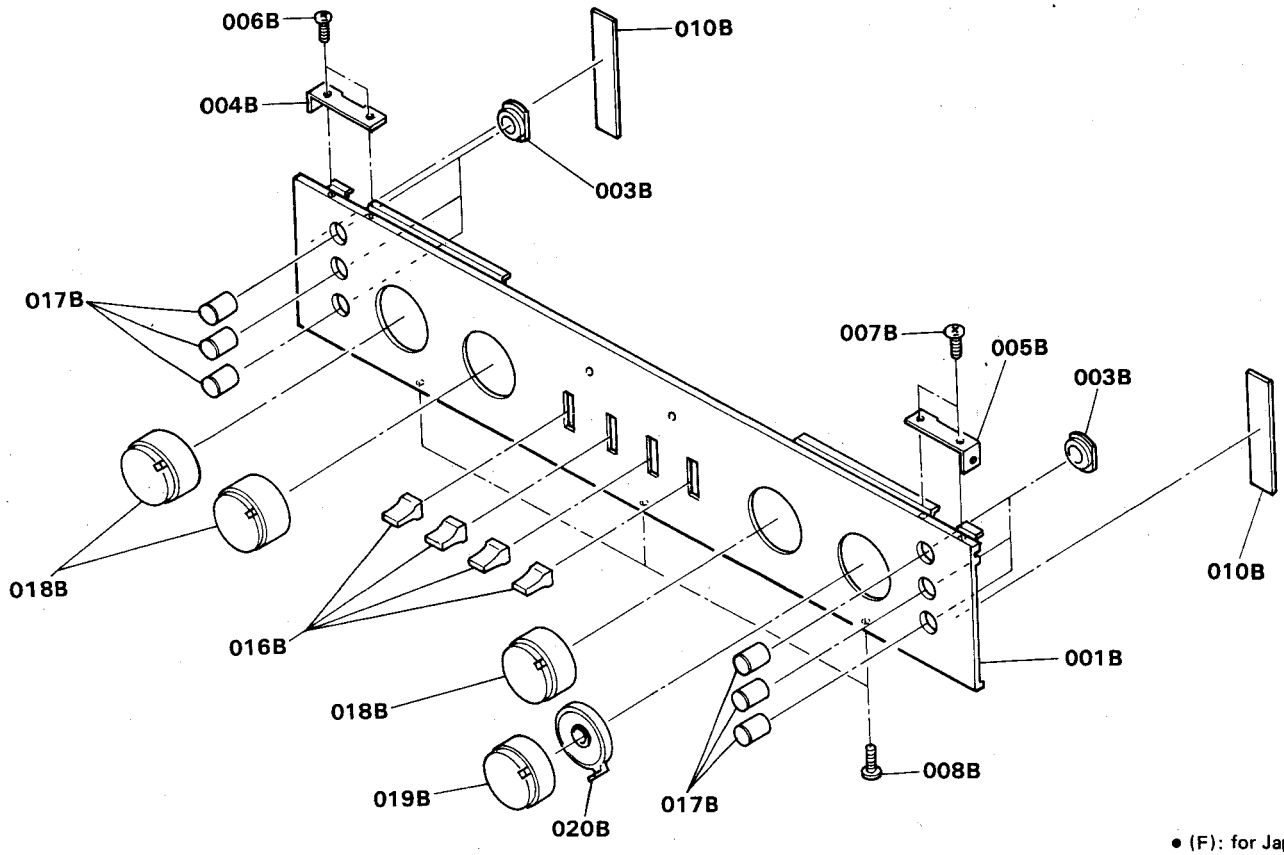


ブロックダイアグラム



⊠ 分解及び部品表

● Front Panel (C01-99)

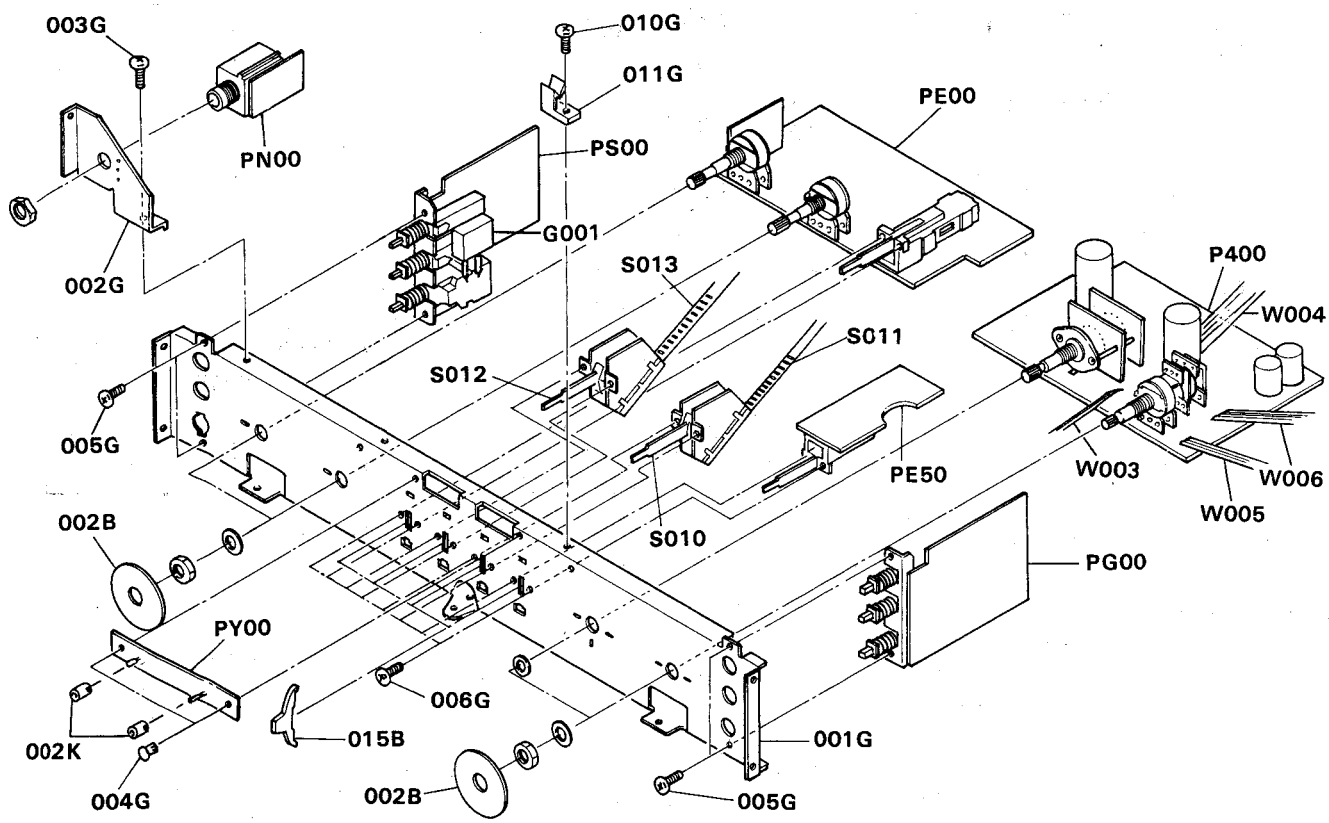


● (F): for Japan
● (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
A	1		202H063400	Front Panel Assembly
A'		1	202H063410	Front Panel Assembly
001B	1		202H063010	Escutcheon, Front Panel
001B		1	202H063020	Escutcheon, Front Panel
003B	6	6	2978259010	Bushing, Push Switch
004B	1	1	202H160120	Bracket, Panel Side (L)
005B	1	1	202H160130	Bracket, Panel Side (R)
006B	2	2	5128030880	B.H. Tapped Screw B3 x 8
007B	2	2	5128030880	B.H. Tapped Screw B3 x 8
008B	3	3	5128030880	B.H. Tapped Screw B3 x 8

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
010B	2	2	2149118010	Spacer, Panel Side Mask
016B	4	4	2144154010	Knob, Lever Switch
017B	6	6	2462154220	Knob, Push Switch
018B	3	3	202H154010	Knob, Tone and Selector
019B	1	1	202H154020	Knob, Volume
020B	1	1	202H154030	Knob, Balance

● Front Chassis and General Part (C02-99)

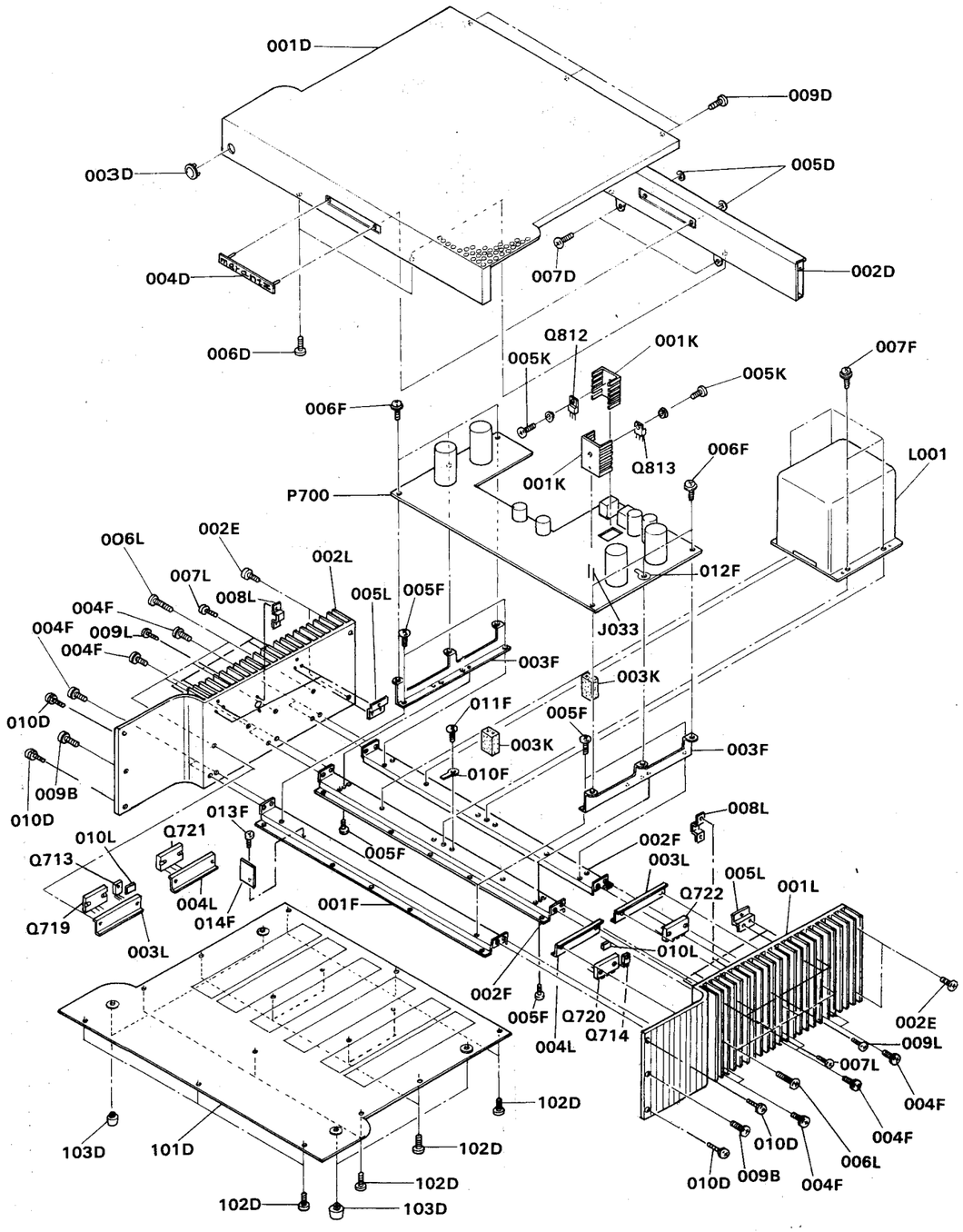


● (F): for Japan
● (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
002B	4	4	202H303040	Mask, Knob Hole
015B	4	4	2144259010	Bushing, Switch Shaft
001G	1	1	202H160010	Bracket, Front Chassis
002G	1	1	202H160100	Bracket, Head Phone Jack
003G	1	1	51280308U0	B.H. Tapped Screw B3 x 8
004G	2	2	2276005050	Clamper, LED P.W. Board
005G	4	4	51100306A9	B.H.M. Screw B3 x 6
006G	8	8	51100306A9	B.H.M. Screw B3 x 6

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
007G	2	2	51290310U0	B.T. Screw B3 x 10
010G	1	1	51280308U0	B.H. Tapped Screw B3 x 8
011G	1	1	2887005010	Clamper, Wire
G001	1		BF10400030	Cap. Comp. 0.1μF + 120Ω
G001		1	BF10400060	Cap. Comp. 0.1μF + 1.2kΩ
S010	1	1	SC00030030	Switch, Tape Moniter
S011	1	1	SB12870010	Flexible Switch Band
S012	1	1	SC00030030	Switch, Tape Copy
S013	1	1	SB13050010	Flexible Switch Band
002K	2	2	202H259010	Bushing, LED
W003	1	1	YU03150010	Jumper Lead, 3P x 150MM
W004	1	1	YU03150010	Jumper Lead, 3P x 150MM
W005	1	1	YU03200010	Jumper Lead, 3P x 200MM
W006	1	1	YU05100010	Jumper Lead, 5P x 100MM

• Top Cover, Bottom Cover, Main Amp and Heatsink (C03-99)

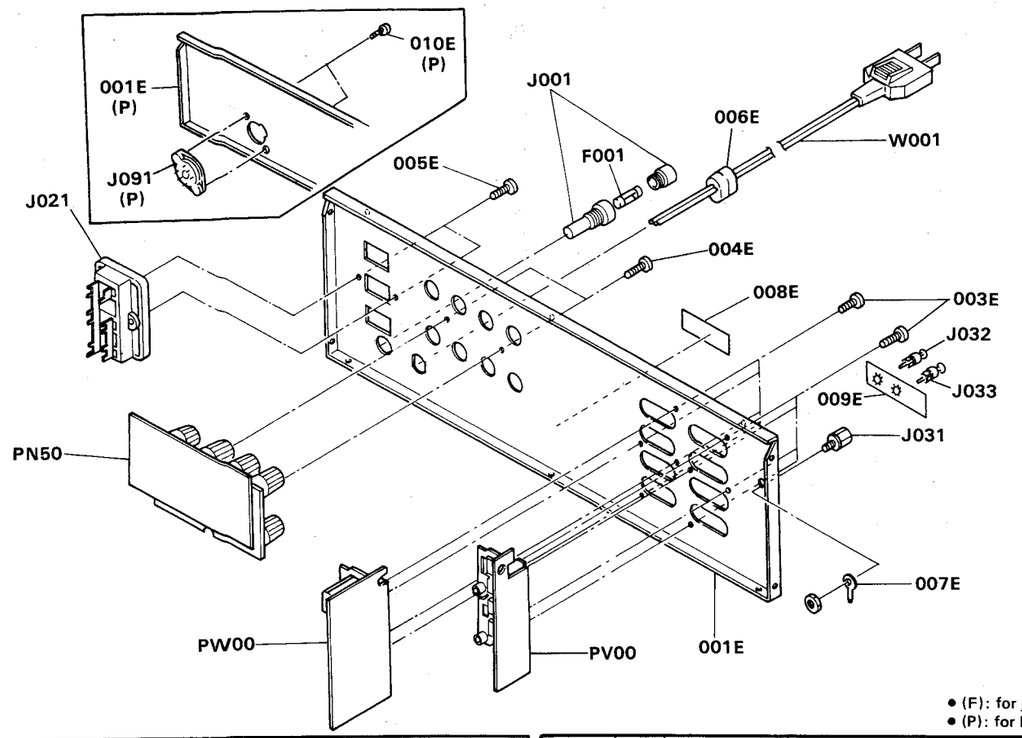


• (F): for Japan
• (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
009B	2	2	51280310U0	B.H. Tapped Screw B3 x 10
001D	1	1	202H257110	Lid, Top Cover
002D	1	1	202H303020	Mask, Top Cover Front
003D	1	1	202H259020	Bushing, Head Phone Panel
004D	1	1	2988251010	Badge, Top Cover Front
005D	2	2	6402030000	R.G. Ring, CS
006D	2	2	51280308U0	B.H. Tapped Screw B3 x 8
007D	2	2	51280308B0	B.H. Tapped Screw B3 x 8
008D	2	2	51280312U0	B.H. Tapped Screw B3 x 12
009D	3	3	51280308U0	B.H. Tapped Screw B3 x 8
010D	4	4	51280312U0	B.H. Tapped Screw B3 x 12
101D	1	1	202H257020	Lid, Bottom Cover
102D	15	15	51280410U0	B.H. Tapped Screw B4 x 10
103D	4	4	2149057010	Leg
002E	4	4	51290310U0	B.T. Screw B3 x 10
001F	1	1	202H126010	Stay, Bottom Cover Chassis
002F	2	2	202H126110	Stay,
003F	2	2	202H160020	Bracket, Transformer Chassis
004F	12	12	51290310U0	B.T. Screw B3 x 10
005F	6	6	51280308B0	B.H.Tapped Screw B3 x 8
006F	6	6	51260308B0	B.T. Screw B3 x 8
007F	4	4	51490410A9	L. Washer Screw B4 x 10
010F	1	1	62030049W0	Lug
011F	1	1	51280306B0	B.H. Tapped Screw B3 x 6
012F	1	1	62030049W0	Lug
013F	1	1	51280306B0	B.H. Tapped Screw B3 x 6
014F	1	1	202H109010	Shield, Main P.W.B.
015F	1	1	4220005030	Clamper, Power Switch Wire

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
001K	2	2	202H267030	Heat Sink
003K	2	2	202H056010	Buffer
004K	1	1	2259109040	Shield, Tone P.W. Board
005K	2	2	51280308B0	B.H. Tapped Screw B3 x 8
001L	1	1	202H267010	Heat Sink, R
002L	1	1	202H267020	Heat Sink, L
003L	2	2	202H160050	Bracket, Power Transistor
004L	2	2	202H160060	Bracket, Power Transistor
005L	4	4	202H160110	Bracket
006L	8	8	51100316S9	B.H.M. Screw B3 x 16
007L	8	8	51280310U0	B.H. Tapped Screw B3 x 10
008L	2	2	202H303050	Mask, Unused Hole
009L	2	2	51280308U0	B.H. Tapped Screw B3 x 8
010L	2	2	202H118010	Spacer, Small Transistor
L001	1		TS18505050	Power Transformer
L001		1	TS18505060	Power Transformer

● Rear Panel (C04-99)

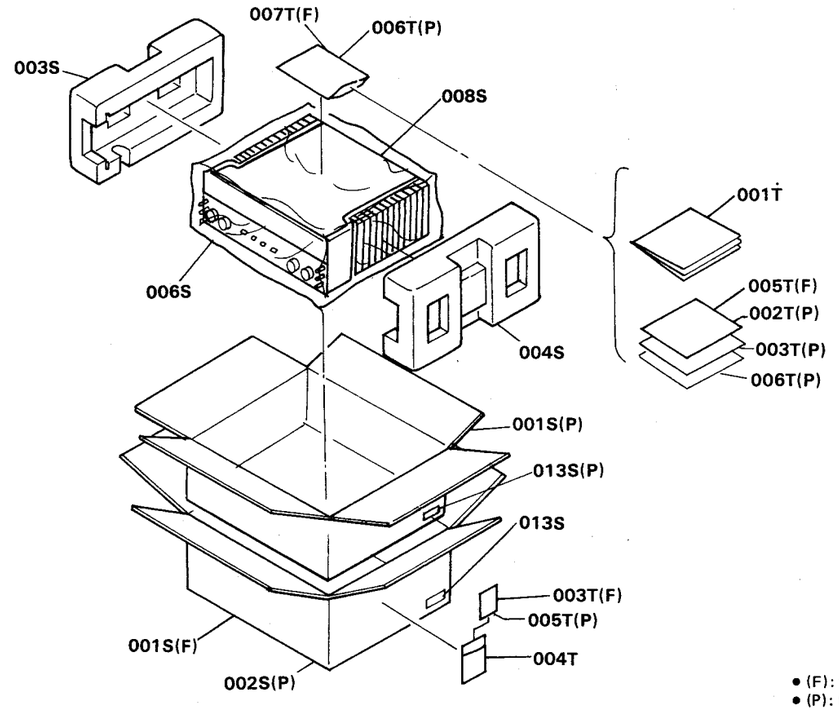


● (F): for japan
● (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
001E	1		202H160210	Bracket, Rear Panel
001E		1	202H160220	Bracket, Rear Panel
003E	8	8	51280308U0	B.H. Tapped Screw B3 x 8
004E	2	2	51280308U0	B.H. Tapped Screw B3 x 8
005E	2	2	51280310U0	B.T. Tapped Screw B3 x 10
006E	1	1	1455259090	Bushing
007E	1	1	62040029W0	Lug
008E	1	1	211226501O	Indicator
009E	1	1	202H863010	Hang Tag, Phono 1 Pin Jack
010E		2	51280310U0	B.H. Tapped Screw B3 x 10
⚠F001	1	1	FS10500060	Fuse, 5A 250V

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
⚠J001	1	1	YJ08000300	Jack, Fuse Holder
⚠J021	1	1	YJ04000730	Jack, AC Outlet 3P
J031	1	1	YT01010050	Terminal, G.R.D.
J032	1	1	YQ01000020	Shote Plug
J033	1	1	YQ01000020	Shote Plug
J091		1	BY05080010	Voltage Selector
⚠W001	1	1	YC02400180	A.C. Power Cord
⚠901V		1	YJ04000240	Jack, Socket

● Packing Material (C05-99)



● (F): for Japan
● (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
001S	1		202H801010	Packing Case
001S		1	202H801030	Packing Case, In
002S		1	202H801040	Packing Case, Out
003S	1	1	202H809010	Cushion (L)
004S	1	1	202H809020	Cushion (R)
006S	1	1	9090909040	Polyethylene Sheet
008S	1	1	2864804010	Sleeve
013S	2		9526019040	Serial No. Card
013S		4	9526019050	Serial No. Card
015S		1	9011325010	Polyethylene Bag

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
001T	1		202H851110	Instructions, Japan
001T		1	202H851310	Instructions, English
002T	1		9631000110	Guarantee Card
002T		1	202H851020	Instructions
003T	1		2976851040	Instructions
003T		1	2818854010	Guarantee Card
004T	1		2976813020	Envelope
004T		1	2713813010	Envelope
005T	1		9650000030	S. Station Card
005T		1	9630000180	Guarantee Card
006T	1		9013025010	Polyethylene Bag
006T		1	9650000010	S. Station Card
007T		1	9013025010	Polyethylene Bag

⊠電気部品表

• (F): for Japan
• (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
				P400-PRE AMP CIRCUIT BOARD
P400	1	1	WK202H2720	P.W. Board, Pre Amp
				P400-CAPACITORS
C401	1	1	EA10603540	Elect 10μF 35V
C402	1	1	EA10603540	Elect 10μF 35V
C403	1	1	DF76101550	Film 100pF ±10%
C404	1	1	DF76101550	Film 100pF ±10%
C405	1	1	DF16102300	Film 1000pF ±10%
C406	1	1	DF16102300	Film 1000pF ±10%
C407	1	1	DF55121090	Film 120pF ±5%
C408	1	1	DF55121090	Film 120pF ±5%
C409	1	1	EA10601690	Elect 10μF 16V
C410	1	1	EA10601690	Elect 10μF 16V
C411	1	1	EA10603540	Elect 10μF 35V
C412	1	1	EA10603540	Elect 10μF 35V
C413	1	1	DF16182300	Film 1800pF ±10%
C414	1	1	DF16182300	Film 1800pF ±10%
C415	1	1	EA22801050	Elect 2200μF 10V
C416	1	1	EA22801050	Elect 2200μF 10V
C417	1	1	DF16223300	Film 0.022μF ±10%
C418	1	1	DF16223300	Film 0.022μF ±10%
C419	1	1	DF15472300	Film 4700pF ±5%
C420	1	1	DF15472300	Film 4700pF ±5%
C421	1	1	DF15273300	Film 0.027μF ±5%
C422	1	1	DF15273300	Film 0.027μF ±5%
C423	1	1	DF55821090	Film 820pF ±5%
C424	1	1	DF55821090	Film 820pF ±5%
C425	1	1	DF15822300	Film 8200pF ±5%
C426	1	1	DF15822300	Film 8200pF ±5%
C427	1	1	EA22703590	Elect 220μF 35V
C428	1	1	EA22703590	Elect 220μF 35V
				P400-RESISTORS
				(All Resistors are ±5% and 1/4W)
R401	1	1	GD05220140	22Ω
R402	1	1	GD05220140	22Ω
R403	1	1	GD05104140	100kΩ
R404	1	1	GD05104140	100kΩ
R405	1	1	GD05104140	100kΩ
R406	1	1	GD05104140	100kΩ
R407	1	1	GD05123140	12kΩ
R408	1	1	GD05123140	12kΩ
R409	1	1	GD05123140	12kΩ
R410	1	1	GD05123140	12kΩ
R411	1	1	GD05333140	33kΩ
R412	1	1	GD05333140	33kΩ
R413	1	1	GD05821140	820Ω
R414	1	1	GD05821140	820Ω
R415	1	1	GD05472140	4.7kΩ
R416	1	1	GD05472140	4.7kΩ
R417	1	1	GD05102140	1kΩ
R418	1	1	GD05102140	1kΩ
R419	1	1	GD05472140	4.7kΩ
R420	1	1	GD05472140	4.7kΩ

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
R421	1	1	GD05102140	1kΩ
R422	1	1	GD05102140	1kΩ
R423	1	1	GD05182140	1.8kΩ
R424	1	1	GD05182140	1.8kΩ
R425	1	1	GD05821140	820Ω
R426	1	1	GD05821140	820Ω
R427	1	1	GD05100140	10Ω
R428	1	1	GD05100140	10Ω
R429	1	1	GD05100140	10Ω
R430	1	1	GD05100140	10Ω
R431	1	1	GD05330140	33Ω
R432	1	1	GD05330140	33Ω
R433	1	1	GD05330140	33Ω
R434	1	1	GD05330140	33Ω
R435	1	1	GD05221140	220Ω
R436	1	1	GD05221140	220Ω
R437	1	1	GD05820140	82Ω
R438	1	1	GD05820140	82Ω
R439	1	1	GD05181140	180Ω
R440	1	1	GD05181140	180Ω
R443	1	1	GD05120140	12Ω
R444	1	1	GD05120140	12Ω
R447	1	1	GD05104140	100kΩ
R448	1	1	GD05104140	100kΩ
R449	1	1	GD05822140	8.2kΩ
R450	1	1	GD05822140	8.2kΩ
R451	1	1	GD05102140	1kΩ
R452	1	1	GD05102140	1kΩ
R453	1	1	GD05104140	100kΩ
R454	1	1	GD05104140	100kΩ
R455	1	1	GG05470120	47Ω 1/2W
R456	1	1	GG05470120	47Ω 1/2W
R457	1	1	GD05273140	27kΩ
R458	1	1	GD05273140	27kΩ
R459	1	1	RU01040020	100kΩ (B), Variable
				P400-SEMICONDUCTORS
Q401	1	1	HT325451E0	Transistor 2SC2545(E)
Q402	1	1	HT325451E0	Transistor 2SC2545(E)
Q403	1	1	HT325451E0	Transistor 2SC2545(E)
Q404	1	1	HT325451E0	Transistor 2SC2545(E)
Q405	1	1	HT107501E0	Transistor 2SA750(E)
Q406	1	1	HT107501E0	Transistor 2SA750(E)
Q407	1	1	HT107501E0	Transistor 2SA750(E)
Q408	1	1	HT107501E0	Transistor 2SA750(E)
Q409	1	1	HT314001E0	Transistor 2SC1400(E)
Q410	1	1	HT314001E0	Transistor 2SC1400(E)
Q411	1	1	HT314001E0	Transistor 2SC1400(E)
Q412	1	1	HT314001E0	Transistor 2SC1400(E)
Q413	1	1	HT406661C0	Transistor 2SD666(C)
Q414	1	1	HT406661C0	Transistor 2SD666(C)
Q415	1	1	HT206461C0	Transistor 2SB646(C)
Q416	1	1	HT206461C0	Transistor 2SB646(C)
Q417	1	1	HD20011050	Diode 1S1555
Q418	1	1	HD20011050	Diode 1S1555

- (F): for Japan
- (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
				P400-SWITCH
S401	1	1	SR08050400	Rotary Switch. Selector
				P700-MAIN AMP CIRCUIT BOARD
P700	1	1	WK202H1410	P.W. Board. Main Amp
				P700-CAPACITORS
C701	1	1	DF55102090	Film 1000pF ±5%
C702	1	1	DF55102090	Film 1000pF ±5%
C703	1	1	EA10801690	Elect 1000μF 16V
C704	1	1	EA10801690	Elect 1000μF 16V
C705	1	1	DF55181090	Film 180pF ±5%
C706	1	1	DF55181090	Film 180pF ±5%
C707	1	1	DF55181090	Film 180pF ±5%
C708	1	1	DF55181090	Film 180pF ±5%
C709	1	1	DF76390550	Film 39pF ±10%
C710	1	1	DF76390550	Film 39pF ±10%
C711	1	1	EA10701690	Elect 100μF 16V
C712	1	1	EA10701690	Elect 100μF 16V
C713	1	1	DF16104350	Film 0.1μF ±10%
C714	1	1	DF16104350	Film 0.1μF ±10%
C717	1	1	DF17473520	Film 0.047μF ±20%
C718	1	1	DF17473520	Film 0.047μF ±20%
C719	1	1	DF16102350	Film 1000pF ±10%
C720	1	1	DF16102350	Film 1000pF ±10%
C721	1	1	DF16102350	Film 1000pF ±10%
C722	1	1	DF16102350	Film 1000pF ±10%
⚠C727	1	1	EB68805510	Elect 6800μF 55V
⚠C728	1	1	EB68805510	Elect 6800μF 55V
⚠C729	1	1	EB68805510	Elect 6800μF 55V
⚠C730	1	1	EB68805510	Elect 6800μF 55V
C801	1	1	DK18103510	Ceramic 0.01μF
C802	1	1	DK18103510	Ceramic 0.01μF
C803	1	1	EA47706350	Elect 470μF 63V
C804	1	1	EA47706350	Elect 470μF 63V
C807	1	1	EA22703530	Elect 220μF 35V
C808	1	1	EA22703530	Elect 220μF 35V
C809	1	1	EA10701030	Elect 100μF 10V
C810	1	1	EA22701030	Elect 220μF 10V
C811	1	1	EA10702530	Elect 100μF 25V
C813	1	1	DF16102350	Elect 1000pF 50V
C814	1	1	DF16102350	Elect 1000pF 50V
				P700-RESISTORS (All Resistors are ±5% and 1/4W)
R701	1	1	GD05471140	470Ω
R702	1	1	GD05471140	470Ω
R703	1	1	GD05333140	33kΩ
R704	1	1	GD05333140	33kΩ
R705	1	1	GD05222140	2.2kΩ
R706	1	1	GD05222140	2.2kΩ
R707	1	1	GD05222140	2.2kΩ
R708	1	1	GD05222140	2.2kΩ
R709	1	1	GD05561140	560Ω
R710	1	1	GD05561140	560Ω

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
R711	1	1	GD05561140	560Ω
R712	1	1	GD05561140	560Ω
R713	1	1	GD05561140	560Ω
R714	1	1	GD05561140	560Ω
R715	1	1	GD05183140	18kΩ
R716	1	1	GD05183140	18kΩ
R717	1	1	GD05122140	1.2kΩ
R718	1	1	GD05122140	1.2kΩ
R719	1	1	GD05181140	180Ω
R720	1	1	GD05181140	180Ω
R721	1	1	GG05222120	2.2kΩ 1/2W
R722	1	1	GG05222120	2.2kΩ 1/2W
R723	1	1	GD05822140	8.2kΩ
R724	1	1	GD05822140	8.2kΩ
R725	1	1	GD05822140	8.2kΩ
R726	1	1	GD05822140	8.2kΩ
R727	1	1	GD05104140	100kΩ
R728	1	1	GD05104140	100kΩ
R729	1	1	RA02030150	Trimming 20kΩ(B)
R730	1	1	RA02030150	Trimming 20kΩ(B)
R731	1	1	GD05561140	560Ω
R732	1	1	GD05561140	560Ω
R733	1	1	GG05822120	8.2kΩ 1/2W
R734	1	1	GG05822120	8.2kΩ 1/2W
R735	1	1	GG05222140	2.2kΩ
R736	1	1	GG05222140	2.2kΩ
R737	1	1	GG05222140	2.2kΩ
R738	1	1	GG05222140	2.2kΩ
R739	1	1	GG05471140	470Ω
R740	1	1	GG05471140	470Ω
R741	1	1	GG05471140	470Ω
R742	1	1	GG05471140	470Ω
R743	1	1	GD05473140	47kΩ
R744	1	1	GD05473140	47kΩ
R745	1	1	GD05473140	47kΩ
R746	1	1	GD05473140	47kΩ
R747	1	1	GD05222140	2.2kΩ
R748	1	1	GD05222140	2.2kΩ
R749	1	1	GD05332140	3.3kΩ
R750	1	1	GD05332140	3.3kΩ
R751	1	1	RA04720080	Trimming 4.7kΩ(B)
R752	1	1	RA04720080	Trimming 4.7kΩ(B)
R753	1	1	RA01020320	Trimming 1kΩ(B)
R754	1	1	RA01020320	Trimming 1kΩ(B)
R755	1	1	GD05821140	820Ω
R756	1	1	GD05821140	820Ω
R757	1	1	RF05121140	120Ω
R758	1	1	RF05121140	120Ω
R759	1	1	RF05121140	120Ω
R760	1	1	RF05121140	120Ω

• (F): for Japan
• (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION		
R761	1	1	RFO5100120	10Ω	1/2W	
R762	1	1	RFO5100120	10Ω	1/2W	
R763	1	1	RFO5100120	10Ω	1/2W	
R764	1	1	RFO5100120	10Ω	1/2W	
R765	1	1	GA05271010	270Ω	1W	
R766	1	1	GA05271010	270Ω	1W	
R769	1	1	GO10332050	3.3kΩ	±10%	5W
R770	1	1	GO10332050	3.3kΩ	±10%	5W
R711	1	1	GO10332050	3.3kΩ	±10%	5W
R772	1	1	GO10332050	3.3kΩ	±10%	5W
R773	1	1	GD05331140	330Ω		
R774	1	1	GD05331140	330Ω		
R775	1	1	GD05331140	330Ω		
R776	1	1	GD05331140	330Ω		
R777	1	1	GG05472140	4.7kΩ		
R778	1	1	GG05472140	4.7kΩ		
R779	1	1	GG05472140	4.7kΩ		
R780	1	1	GG05472140	4.7kΩ		
R781	1	1	GD05223140	22kΩ		
R782	1	1	GD05223140	22kΩ		
R783	1	1	RC10022120	2.2Ω	±10%	1/2W
R784	1	1	RC10022120	2.2Ω	±10%	1/2W
R785	1	1	GA05100020	10Ω	2W	
R786	1	1	GA05100020	10Ω	2W	
R789	1	1	GD05272140	2.7kΩ		
R790	1	1	GD05272140	2.7kΩ		
R791	1	1	GD05272140	2.7kΩ		
R792	1	1	GD05272140	2.7kΩ		
R793	1	1	GJ05103010	10kΩ	1W	
R794	1	1	GJ05103010	10kΩ	1W	
R795	1	1	GJ05103010	10kΩ	1W	
R796	1	1	GJ05103010	10kΩ	1W	
R803	1	1	GD05562140	5.6kΩ		
R804	1	1	GD05562140	5.6kΩ		
R809	1	1	GG05332120	3.3kΩ	1/2W	
R810	1	1	GG05332120	3.3kΩ	1/2W	
R811	1	1	GD05273140	27kΩ		
R812	1	1	GD05273140	27kΩ		
R813	1	1	GD05682140	6.8kΩ		
R814	1	1	GD05682140	6.8kΩ		
R816	1	1	GA05562010	5.6kΩ	1W	
R817	1	1	GA05562010	5.6kΩ	1W	
R818	1	1	GD05183140	18kΩ		
R819	1	1	GD05153140	15kΩ		
R820	1	1	GD05562140	5.6kΩ		
R821	1	1	GD05104140	100kΩ		
R822	1	1	GD05393140	39kΩ		
R823	1	1	GD05022140	2.2Ω		
R824	1	1	GD05333140	33kΩ		
R825	1	1	GD05123140	12kΩ		
R826	1	1	GD05123140	12kΩ		

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION	
				P700-SEMICONDUCTORS	
Q701	1	1	HC10021020	IC	M47F
Q702	1	1	HC10021020	IC	M47F
Q703	1	1	HT322592F0	Transistor	2SC2259(F or G)
Q704	1	1	HT322592F0	Transistor	2SC2259(F or G)
Q705	1	1	HT314001E0	Transistor	2SC1400(E)
Q706	1	1	HT314001E0	Transistor	2SC1400(E)
Q707	1	1	HT109702A0	Transistor	2SA970GR or BL
Q708	1	1	HT109702A0	Transistor	2SA970GR or BL
Q709	1	1	HT109491B0	Transistor	2SA949(Y)
Q710	1	1	HT109491B0	Transistor	2SA949(Y)
Q711	1	1	HT322291B0	Transistor	2SC2229(Y)
Q712	1	1	HT322291B0	Transistor	2SC2229(Y)
Q713	1	1	HT315681S0	Transistor	2SC1568(S)
Q714	1	1	HT315681S0	Transistor	2SC1568(S)
Q715	1	1	HT328241Y0	Transistor	2SC2824(Y)
Q716	1	1	HT328241Y0	Transistor	2SC2824(Y)
Q717	1	1	HT111841Y0	Transistor	2SA1184(Y)
Q718	1	1	HT111841Y0	Transistor	2SA1184(Y)
Q719	1	1	HT325642A0	Transistor	2SC2564(R or O)
Q720	1	1	HT325642A0	Transistor	2SC2564(R or O)
Q721	1	1	HT110942A0	Transistor	2SA1094(R or O)
Q722	1	1	HT110942A0	Transistor	2SA1094(R or O)
Q723	1	1	HT309451Q0	Transistor	2SC945(Q)
Q724	1	1	HT309451Q0	Transistor	2SC945(Q)
Q725	1	1	HT107331Q0	Transistor	2SA733(Q)
Q726	1	1	HT107331Q0	Transistor	2SA733(Q)
Q727	1	1	HD30009010	Zener	HZ12A2L
Q728	1	1	HD30009010	Zener	HZ12A2L
Q729	1	1	HD20011050	Diode	1S1555
Q730	1	1	HD20011050	Diode	1S1555
Q731	1	1	HD20011050	Diode	1S1555
Q732	1	1	HD20011050	Diode	1S1555
Q733	1	1	HD20011050	Diode	1S1555
Q734	1	1	HD20011050	Diode	1S1555
Q735	1	1	HD20011050	Diode	1S1555
Q736	1	1	HD20011050	Diode	1S1555
Q741	1	1	HD20011050	Diode	1S1555
Q742	1	1	HD20011050	Diode	1S1555
Q747	1	1	HD20011050	Diode	1S1555
Q748	1	1	HD20011050	Diode	1S1555
Q749	1	1	HD20011050	Diode	1S1555
Q750	1	1	HD20011050	Diode	1S1555
Q751	1	1	HD20003210	Diode	1S2471
Q752	1	1	HD20003210	Diode	1S2471
Q753	1	1	HD20003210	Diode	1S2471
Q754	1	1	HD20003210	Diode	1S2471
Q755	1	1	HD20005010	Diode	W06B
Q756	1	1	HD20005010	Diode	W06B
Q757	1	1	HD20005010	Diode	W06B
Q758	1	1	HD20005010	Diode	W06B
Q801	1	1	HD20015030	Diode	DS-135D
Q802	1	1	HD20015030	Diode	DS-135D
Q803	1	1	HD20015030	Diode	DS-135D
Q804	1	1	HD20015030	Diode	DS-135D
Q805	1	1	HD20015030	Diode	DS-135D
Q806	1	1	HD20015030	Diode	DS-135D
⚠Q807	1	1	HD20011290	Diode	S3VB20
⚠Q808	1	1	HD20011290	Diode	S3VB20
⚠Q809	1	1	HD20011290	Diode	S3VB20
⚠Q810	1	1	HD20011290	Diode	S3VB20

• (F): for Japan
• (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
Q811	1	1	HT410291D0	Transistor 2SD1029(D)
Q812	1	1	HT208131D0	Transistor 2SB813(D)
Q813	1	1	HT314001E0	Transistor 2SC1400(E)
Q814	1	1	HT107501E0	Transistor 2SA750(E)
Q817	1	1	HT314001E0	Transistor 2SC1400(E)
Q818	1	1	HT107501E0	Transistor 2SA750(E)
Q821	1	1	HD30008010	Zener HZ6B1L
Q822	1	1	HD30008010	Zener HZ6B1L
Q821	1	1	HT314001E0	Transistor 2SC1400(E)
Q824	1	1	HT314001E0	Transistor 2SC1400(Ep
Q825	1	1	HT405712B0	Transistor 2SD517(L or K)
Q826	1	1	HD20003210	Diode 1S2471
Q827	1	1	HD20001150	Diode 1S1555
				F700-MISCELLANEOUS
L701	1	1	LJ28115090	Coil
L702	1	1	LJ28115090	Coil
L801	1	1	LY20240140	Relay, Speaker Protector
⚠L802	1	1	LY20240170	Relay, A/B Class
				PE00-TONE AMP CIRCUIT BOARD
PE00	1	1	WK202H2710	P.W. Board, Tone Amp
				PE00-CAPACITORS
CE01	1	1	EA10601050	Elect 10μF 10V
CE02	1	1	EA10601050	Elect 10μF 10V
CE03	1	1	EA47502550	Elect 4.7μF 25V
CE04	1	1	EA47502550	Elect 4.7μF 25V
CE05	1	1	EA10601050	Elect 10μF 10V
CE06	1	1	EA10601050	Elect 10μF 10V
CE07	1	1	EA10701050	Elect 100μF 10V
CE08	1	1	EA10701050	Elect 100μF 10V
CE11	1	1	DF76330550	Film 33pF ±10%
CE12	1	1	DF76330550	Film 33pF ±10%
CE13	1	1	DF16223350	Film 0.022μF ±10%
CE14	1	1	DF16223350	Film 0.022μF ±10%
CE15	1	1	EA22405030	Elect 0.22μF 50V
CE16	1	1	EA22405030	Elect 0.22μF 50V
CE17	1	1	DF16332350	Film 3300pF ±10%
CE18	1	1	DF16332350	Film 3300pF ±10%
CE19	1	1	DF16333350	Film 0.033μF ±10%
CE20	1	1	DF16333350	Film 0.033μF ±10%
CE21	1	1	EA10703590	Elect 100μF 35V
CE22	1	1	EA10703590	Elect 100μF 35V

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
CE25	1	1	DF76220550	Film 22pF ±10%
CE26	1	1	DF76220550	Film 22pF ±10%
CE27	1	1	DF55331090	Film 330pF ±5%
CE28	1	1	DF55331090	Film 330pF ±5%
				PE00-RESISTORS (All Resistors are ±5% and 1/4W)
RE01	1	1	GD05471140	470Ω
RE02	1	1	GD05471140	470Ω
RE03	1	1	GD05104140	100kΩ
RE04	1	1	GD05104140	100kΩ
RE05	1	1	GD05223140	22kΩ
RE06	1	1	GD05223140	22kΩ
RE07	1	1	GD05822140	8.2kΩ
RE08	1	1	GD05822140	8.2kΩ
RE09	1	1	GG05332120	3.3kΩ 1/2W
RE10	1	1	GG05332120	3.3kΩ 1/2W
RE11	1	1	GD05471140	470Ω
RE12	1	1	GD05471140	470Ω
RE13	1	1	GD05105140	1MΩ
RE14	1	1	GD05105140	1MΩ
RE15	1	1	GD05223140	22kΩ
RE16	1	1	GD05223140	22kΩ
RE17	1	1	GD05242140	2.4kΩ
RE18	1	1	GD05242140	2.4kΩ
RE19	1	1	GD05183140	18kΩ
RE20	1	1	GD05183140	18kΩ
RE21	1	1	GD05182140	1.8kΩ
RE22	1	1	GD05182140	1.8kΩ
RE23	1	1	GD05183140	18kΩ
RE24	1	1	GD05183140	18kΩ
RE25	1	1	GD05332140	3.3kΩ
RE26	1	1	GD05332140	3.3kΩ
RE27	1	1	GD05331140	330Ω
RE28	1	1	GD05331140	330Ω
RE29	1	1	RM01040390	100kΩ(C) Variable
RE30	1	1	RM01040390	100kΩ(C) Variable
RE31	1	1	GG05330120	33Ω 1/2W
RE32	1	1	GG05330120	33Ω 1/2W
RE35	1	1	GD05471140	470Ω
RE36	1	1	GD05471140	470Ω
RE37	1	1	GD05330140	33Ω
RE38	1	1	GD05330140	33Ω
				PE00-SEMICONDUCTORS
QE01	1	1	HT107501E0	Transistor 2SA750(E)
QE02	1	1	HT107501E0	Transistor 2SA750(E)
QE03	1	1	HT107501E0	Transistor 2SA750(E)
QE04	1	1	HT107501E0	Transistor 2SA750(E)
QE05	1	1	HT406661C0	Transistor 2SD666(C)
QE06	1	1	HT406661C0	Transistor 2SD666(C)

• (F): for Japan
• (P): for PX.

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
				PE00-SWITCH
SE01	1	1	SC02020390	Switch, Tone Defft
				PE50-MODE SWITCH CIRCUIT BOARD
PE50	1	1	WK202H2760	P.W. Board, Mode Switch
				PE50-RESISTORS (All Resistors are ±5% and 1/4W)
RE33	1	1	GD05471140	470Ω
RE34	1	1	GD05471140	470Ω
				PE50-SWITCH
SE02	1	1	SC04030090	Switch, ST/MONO
				PG00-SWITCH ASSEMBLY CIRCUIT BOARD
PG00	1	1	WK202H1430	P.W. Board, Switch Assembly
				PG00-CAPACITORS
CG01	1	1	EQ10505020	Elect 1μF 50V
CG02	1	1	EQ10505020	Elect 1μF 50V
CG03	1	1	EQ47405020	Elect 0.47μF 50V
CG04	1	1	EQ47405020	Elect 0.47μF 50V
CG05	1	1	DF16683350	Film 0.068μF ±10%
CG06	1	1	DF16683350	Film 0.068μF ±10%
CG07	1	1	DF55271090	Film 270pF ±5%
CG08	1	1	DF55271090	Film 270pF ±5%
				PG00-RESISTORS (All Resistors are ±5% and 1/4W)
RG01	1	1	GD05224140	220kΩ
RG02	1	1	GD05224140	220kΩ
RG03	1	1	GD05473140	47kΩ
RG04	1	1	GD05473140	47kΩ
RG05	1	1	GD05822140	8.2kΩ
RG06	1	1	GD05822140	8.2kΩ
RG07	1	1	GD05332140	3.3kΩ
RG08	1	1	GD05332140	3.3kΩ
RG09	1	1	GD05102140	1kΩ
RG10	1	1	GD05102140	1kΩ
				PG00-SWITCH
SG01	1	1	SP04030200	Switch, A/B and Loudness
				PN00-HEAD PHONE JACK CIRCUIT BOARD
PN00	1	1	WK202H2770	P.W. Board, Head Phone Jack
JN01	1	1	YJ01001340	Jack, Head Phone

REF. DESIG.	Q'TY F	Q'TY P	PART NO.	DESCRIPTION
				PN50-SPEAKER TERMINAL CIRCUIT BOARD
PN50	1	1	WK202H2750	P.W. Board, Speaker Terminal
JN51	1	1	YT01080030	Terminal, Speaker
				PS00-SWITCH CIRCUIT BOARD
PS00	1	1	WK202H1420	P.W. Board, Switch
				PS00-RESISTORS (All Resistors are ±5% and 1/4W)
RS01	1	1	GA05331020	330Ω 2W
RS02	1	1	GA05331020	330Ω 2W
				PS00-SWITCH
SS01	1		SP04030190	Switch, Speaker Select
SS01		1	SP04030210	Switch, Speaker Select
				PV00-PHONO INPUT CIRCUIT BOARD
PV00	1	1	WK202H2730	P.W. Board, Phono Input
				PV00-CAPACITORS
CV01	1	1	DK18203320	Ceramic 0.02μF
CV02	1	1	DK18203320	Ceramic 0.02μF
CV03	1	1	DK18203320	Ceramic 0.02μF
CV04	1	1	DK18203320	Ceramic 0.02μF
				PV00-TERMINALS
JV01	1	1	YT02040260	Terminal, RCA
JV02	1	1	YT02040260	Terminal, RCA
				PW00-TAPE INPUT CIRCUIT BOARD
PW00	1	1	WK202H2740	P.W. Board, Tape Input
				PW00-SWITCHES
SW01	1	1	SS02020670	Switch, Tape Monitor
SW02	1	1	SS04030130	Switch, Tape Out Selector
				PW00-TERMINALS
JW01	1	1	YT02040260	Terminal, (4P) RCA
JW02	1	1	YT02040260	Terminal, (4P) RCA
				PW00-JUMPER LEAD
WW01	1	1	YU07080010	7P x 80MM
				PY00-INDICATOR CIRCUIT BOARD
PY00	1	1	WK202H1440	P.W. Board, LED Assembly
	1	1		
QY01	1	1	HI10010030	L.E.D. SLP-144B
QY02	1	1	HI10010030	L.E.D. SLP-144B

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

⊠規格

定格出力(20Hz～20kHz両ch同時駆動)	60W×2(8Ω負荷)CLASS AB
	15W×2(8Ω負荷)CLASS A
出力帯域幅(8Ω負荷、THD 0.03%)	10～60kHz
全高調波歪率(20Hz～20kHz, 8Ω負荷)	0.015%
混変調歪率	0.015%
周波数特性(20Hz～20kHz)	+0, −0.1dB
(5Hz～100kHz)	+0, −1dB
ダンピングファクター(8Ω負荷)	70
入力感度およびインピーダンス	
フォノ1(MM)	2.5mV/47kΩ
フォノ1(MC)	0.2mV/100Ω
フォノ2(MM)	2.5mV/47kΩ
高レベル	150mV/25kΩ
RIAA偏差(20Hz～20kHz)	±0.25dB
入力等化雑音(フォノ IHF-A)	0.24μV
S/N(IHF-Aネットワーク)フォノ MM	84dB
フォノ MC	64dB
テープ・チューナー・AUX	104dB
フォノ最大許容入力・フォノ MM	330mV
フォノ MC	25mV
トーンコントロール特性(低域100Hz)	±10dB
(高域10kHz)	±10dB

その他

電　源	100V 50/60Hz
消費電力(電気用品取締法)	150W
外形寸法(幅×高さ×奥行き)	416×117.5×334mm
重　量(セット単体)	9.5kg

本機の規格および外観は改良のため予告なく変更することがありますが、ご了承ください。

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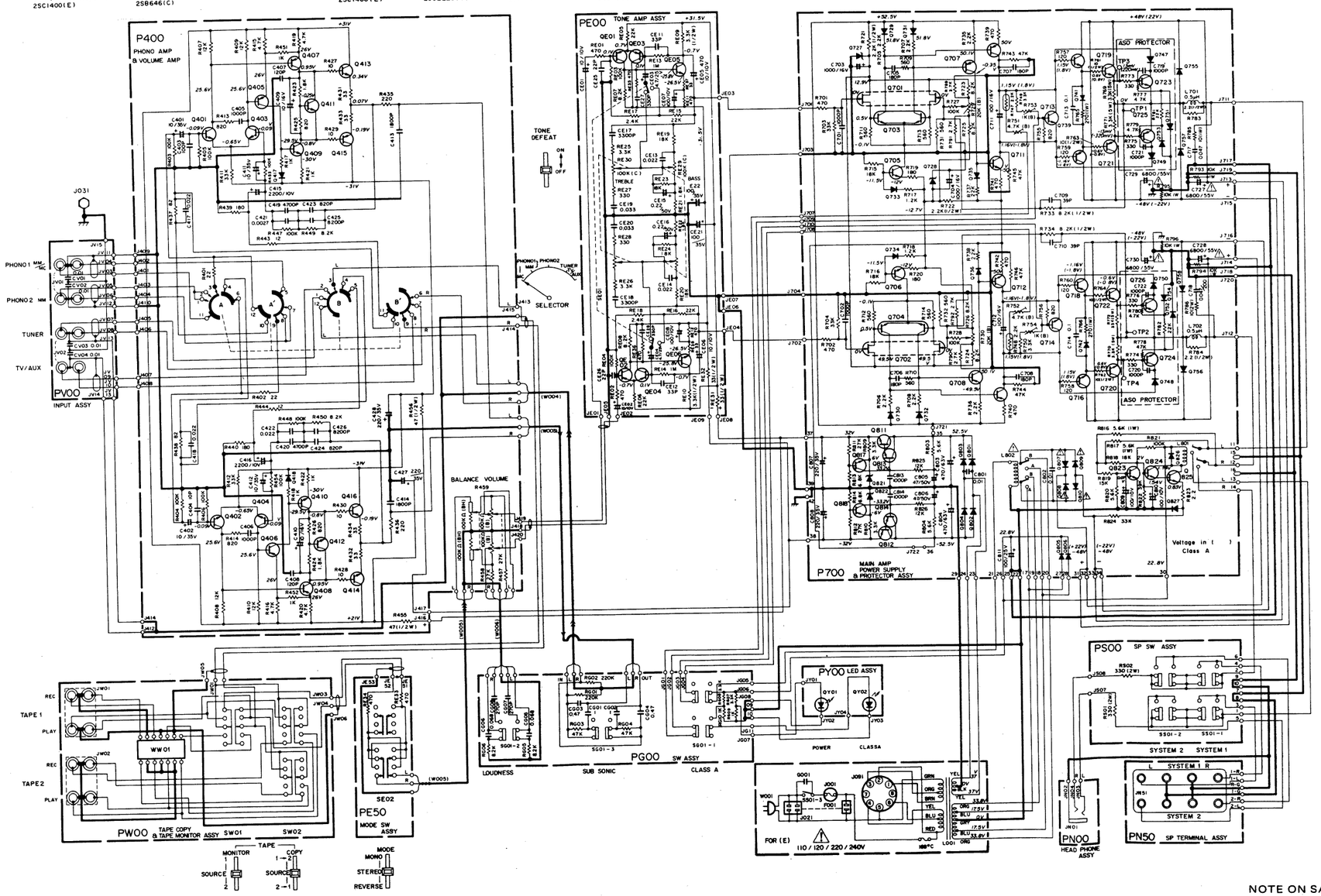
SCHEMATIC DIAGRAM FOR MODEL *Pm-4*

Q401,Q402,Q403,Q404 2SC2545(E)	Q413,Q414 2SD666(C)	QE01,QE02,QE03,QE04 2SA750(E)	Q701, Q702 M47F	Q707, Q708 2SA970(GR,BL)	Q713, Q714 2SC1568(S)	Q719, Q720 2SC2564(R or O)	Q725, Q726 2SA733(Q)		Q755, Q756, Q757, Q758 W06B	Q811 2SD1029(D)	Q814 2SA750(E)	Q818 2SA750(E)	Q823, Q824 2SC1400(E)	QY01, QY02 SLP-144B
Q405, Q406, Q407, Q408 2SA750(E)	Q417, Q418 IS1555	QE05, QE06 2SD666(C)	Q703, Q704 2SC2259(F or G)	Q709, Q710 2SA949(Y)	Q715, Q716 2SC2824(Y)	Q721, Q722 2SA1094(R or O)	Q727, Q728 HZ12A2L	Q741, Q742, Q747~Q750 IS1555	Q801 ~ Q806 DS-135D	Q812 2SB813(D)	Q815 2SA750(E)	Q819, Q820, Q827 IS1555	Q825 2SD517(L or K)	
Q409, Q410, Q411, Q412 2SC1400(E)	Q415, Q416 2SB646(C)		Q705, Q706 2SC1400(E)	Q711, Q712 2SC2229(Y)	Q717, Q718 2SA1184(Y)	Q723, Q724 2SC945(Q)	Q729 ~ Q736 IS1555	Q751, Q752, Q753, Q754 IS2471	Q807, Q808, Q809, Q810 S3VB20	Q813 2SC1400(E)	Q816, Q817 2SC1400(E)	Q821, Q822 HZ6B1L	Q826 IS2471	

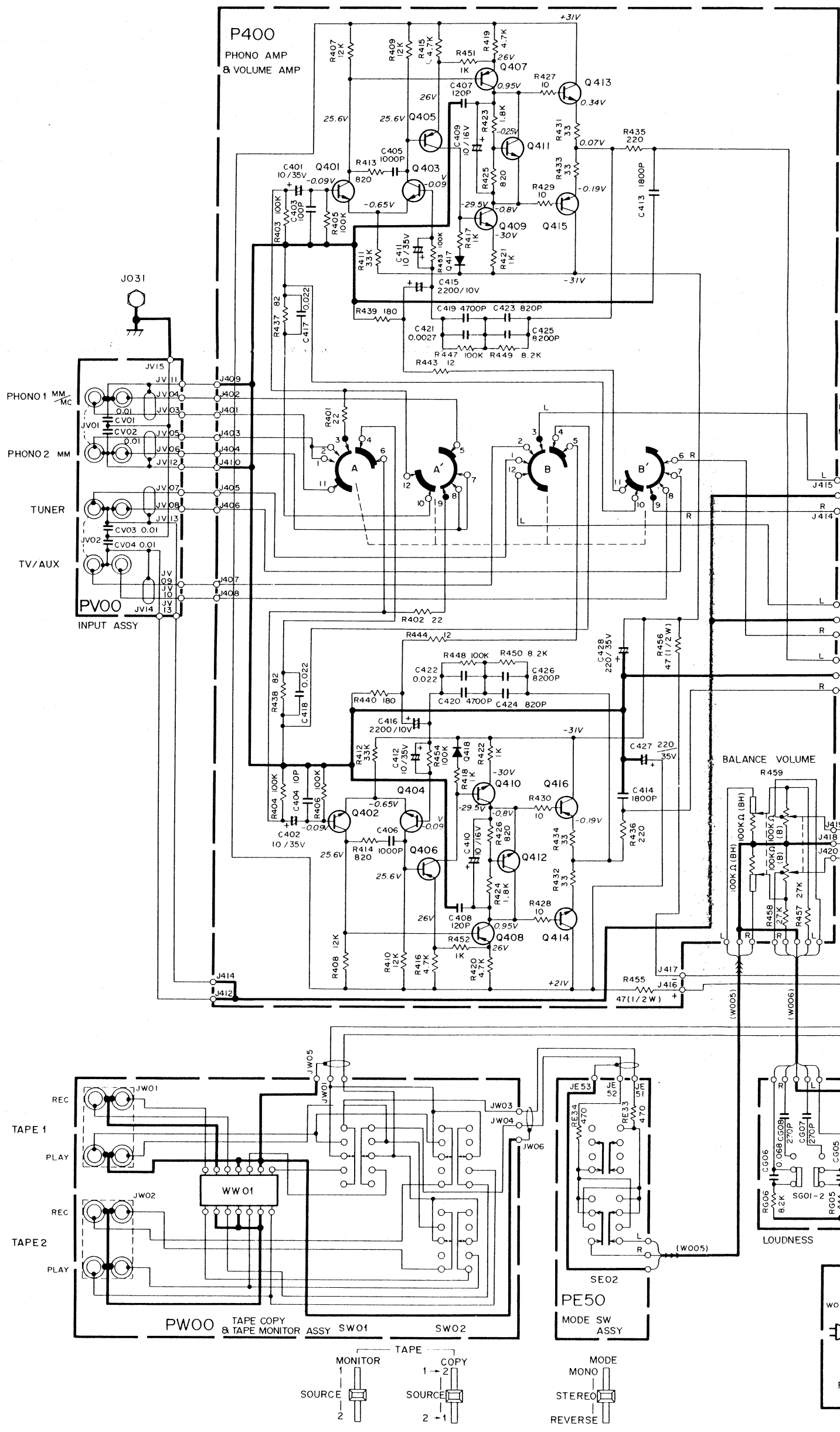


Components and wiring are subject to change for modification without notice.

NOTE ON SAFETY:
The parts marked with ⚠ are important parts on the safety. Please use the parts having the designated parts numbers without fail.

◇回路図

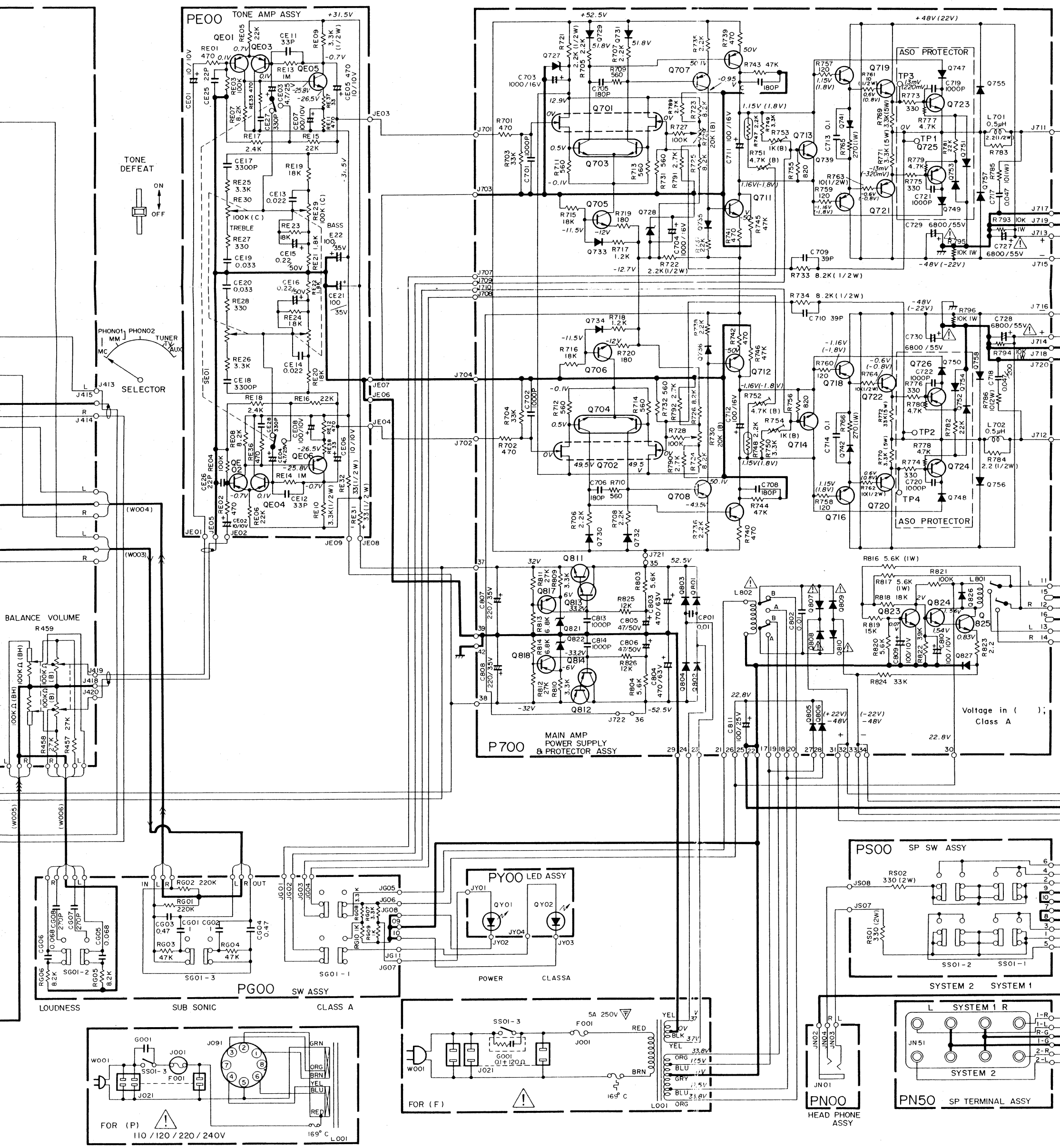
Q401,Q402,Q403,Q404 2SC2545(E)	Q413,Q414 2SD666(C)	QE01,QE02,QE03,QE04 2SA750(E)	Q701, Q702 M47F	Q707, Q708 2SA970(GR,BL)	Q713, Q714 2SC1568(S)	Q719, Q720 2SC2564(R or O)
Q405, Q406,Q407,Q408 2SA750(E)	Q417, Q418 IS1555	QE05, QE06 2SD666(C)	Q703, Q704 2SC2259(F or G)	Q709,Q710 2SA949(Y)	Q715, Q716 2SC2824(Y)	Q721, Q722 2SA1094(R or O)
Q409, Q410, Q411, Q412 2SC1400(E)	Q415, Q416 2SB646(C)		Q705, Q706 2SC1400(E)	Q711, Q712 2SC2229(Y)	Q717, Q718 2SA1184(Y)	Q723, Q724 2SC945(Q)



(安全上の注意：⚠が付いている部品は，安全上重要な部品で

本機の回路は改良のため予告なく変更することがありますが、ご了承く

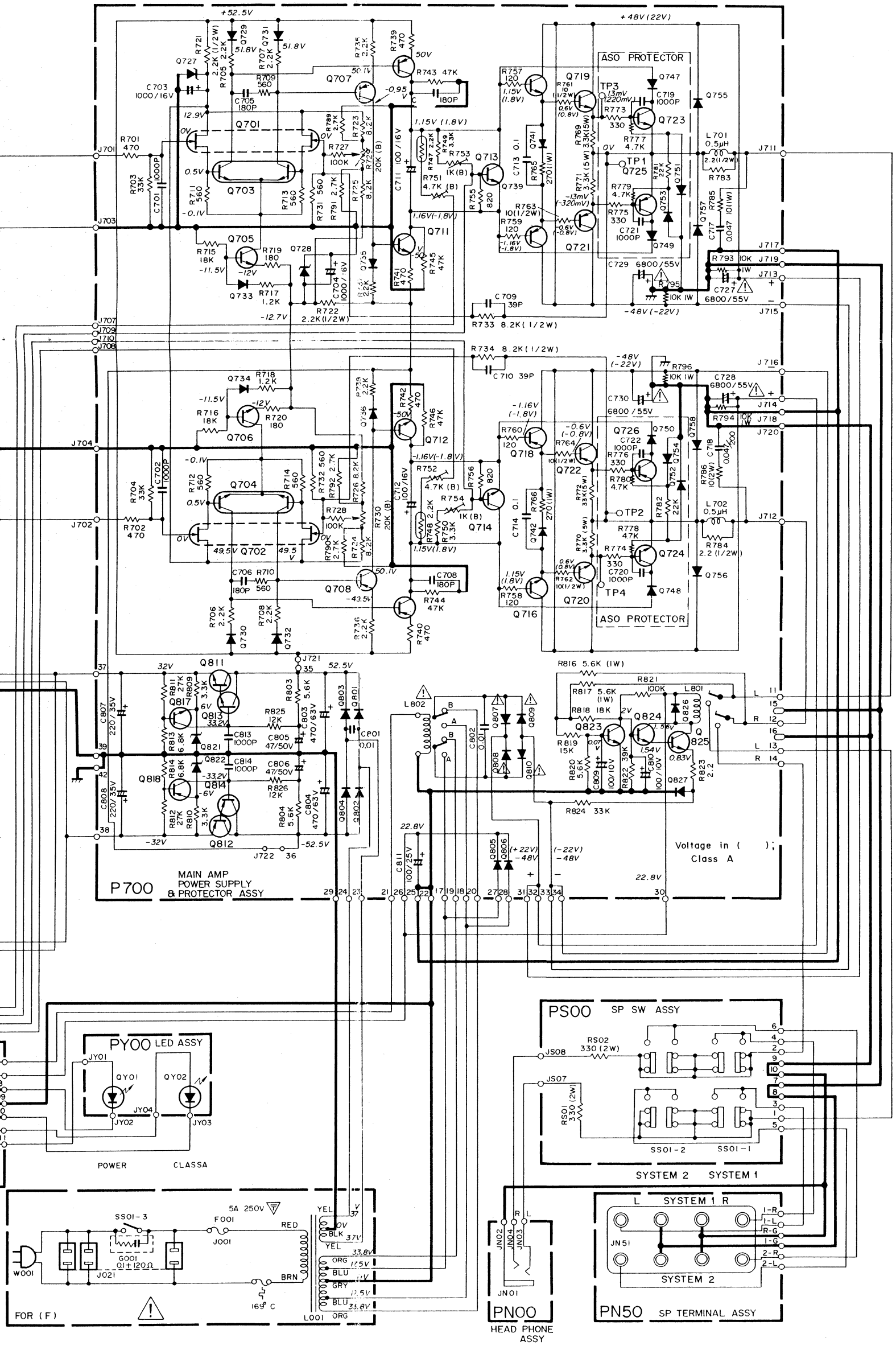
7, Q708 970 (GR, BL)	Q713, Q714 2SC1568 (S)	Q719, Q720 2SC2564 (R or O)	Q725, Q726 2SA733 (Q)		Q755, Q756, Q757, Q758 W06B	Q811 2SD1029 (D)	Q814 2SA750 (E)	Q818 2SA750 (E)	Q823, Q82 2SC1400 (E
9, Q710 949 (Y)	Q715, Q716 2SC2824 (Y)	Q721, Q722 2SA1094 (R or O)	Q727, Q728 HZ12A2L	Q741, Q742, Q747 ~ Q750 IS1555	Q801 ~ Q806 DS-135D	Q812 2SB813 (D)	Q815 2SA750 (E)	Q819, Q820, Q827 IS1555	Q825 2SD517 (L
1, Q712 2229 (Y)	Q717, Q718 2SA1184 (Y)	Q723, Q724 2SC945 (Q)	Q729 ~ Q736 IS1555	Q751, Q752, Q753, Q754 IS2471	Q807, Q808, Q809, Q810 S3VB20	Q813 2SC1400 (E)	Q816, Q817 2SC1400 (E)	Q821, Q822 HZ6B1L	Q826 IS2471



(安全上の注意：⚠が付いている部品は，安全上重要な部品です。必ず指定されている部品番号の部品を使用してください。)

本機の回路は改良のため予告なく変更することがありますが、ご了承ください。

	Q755, Q756, Q757, Q758 W06B	Q811 2SD1029(D)	Q814 2SA750(E)	Q818 2SA750(E)	Q823, Q824 2SC1400(E)	QY01, QY02 SLP-144B
Q741, Q742, Q747~Q750 IS1555	Q801 ~ Q806 DS-135D	Q812 2SB813(D)	Q815 2SA750(E)	Q819, Q820, Q827 IS1555	Q825 2SD517(L or K)	
Q751, Q752, Q753, Q754 IS2471	Q807, Q808, Q809, Q810 S3VB20	Q813 2SC1400(E)	Q816, Q817 2SC1400(E)	Q821, Q822 HZ6B1L	Q826 IS2471	



れている部品番号の部品を使用してください。)

SERVICE MANUAL Pm-4

Since only the unidentical parts between the original model are listed, please use this manual (Flysheet) with the original model Pm-4 (F, P version)

N.B. Following precautions should be used when putting order for service manual:

(1) The original Service manual will not be delivered if the P/N 202H855040 (Flysheet) is used for ordering.

(2) When comprehensive manual are required, please use both P/N 202H855110 (Original) and 202H855040 (Flysheet) simultaneously.

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Different Parts between MODEL Pm-4(F) and MODEL Pm-4(E).

Original Model Pm-4 Page 12

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
010G	1	51280308U8		B.H. Tapped Screw B3x8
011G	1	2887005010		Clamper
G001	1	BF10400030	BF10400060	Cap. Comp. 0.1μF+1.2KΩ
W003	1	YU03150010	YU03160260	Jamper Lead 3Px160 mm
W004	1	YU03150010	YU03160260	Jamper Lead 3Px160 mm
W005	1	YU03200010	YU03200260	Jamper Lead 3Px200 mm
W006	1	YU05100010	YU05100260	Jamper Lead 5Px100 mm

Original Model Pm-4 Page 14

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
L001	1	TS18505050	TS18505060	Power Transformer

Original Model Pm-4 Page 15

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
001E	1	202H160210	202H160220	Bracket Rear, Panel
012E	2		3889861010	Label
F001	1	FS10500060	FS10250600	Fuse 2.5A 250V
W001	1	YC02400180	YC01800220	AC Power Cord

Original Model Pm-4 Page 16

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
008S	1	2864804010		Sleeve
013S	1	9526019040	9526019060	Serial No. Card
015S	1		202H807500	Reinforcing
017S	1		207T156010	Strap
018S	1		2731821010	Silcagel
019S	1		2918107370	Sheet
101S	1		2882861020	Label
001T	1	202H851110	202H851310	Instructions
002T	1	9631000110	202H851020	Instructions
003T	1	2976851040	202H856010	Circuit Diagram
004T	1	2976813020	2275851370	Instructions
005T	1	9650000030		S. Station Card
006T	1	9013025010		Polyeth Bag

Original Model Pm-4 Page 18

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
C805	1		EA47605030	Elect 470μF 50V
C806	1		EA47605030	Elect 470μF 50V
R753	1	RA01020320	RA02020200	Trimming 2KΩ
R754	1	RA01020320	RA02020200	Trimming 2KΩ

Original Model Pm-4 Page 19

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
R789	1	GD05272140		Resistor 2.7K
R790	1	GD05272140		Resistor 2.7K
R791	1	GD05272140		Resistor 2.7K
R792	1	GD05272140		Resistor 2.7K
Q701	1	HC10021020	HC10042060	IC UPA68H
Q702	1	HC10021020	HC1042060	IC UPA68H

Original Model Pm-4 Page 21

REF. DESIG.	Q'TY	Pm-4(F) PART NO.	Pm-4(E) PART NO.	DESCRIPTION
SS01	1	SP04030190	SP04030710	Switch, Speaker Select
P400	1		WK202H2720	P.W.Board, Pre Amp.
	1		ZZ202H8720	P.W.Board, Assembly
P700	1		WK202H1410	P.W.Board, Main Amp.
	1		ZZ202H8410	P.W.Board, Assembly
PE00	1		WK202H2710	P.W.Board, Tone Amp.
	1		ZZ202H8710	P.W.Board, Assembly
PE50	1		WK202H2760	P.W.Board, Mode Switch
	1		ZZ202H8760	P.W.Board, Assembly
PG00	1		WK202H1430	P.W.Board, Switch Assembly
	1		ZZ202H8430	P.W.Board, Assembly
PN00	1		WK202H2770	P.W.Board, Head Phone Jack
	1		ZZ202H8770	P.W.Board, Assembly
PN50	1		WK202H2750	P.W.Board, Speaker Terminal
	1		ZZ202H8750	P.W.Board, Assembly
PS00	1		WK202H1420	P.W.Board, Switch
	1		ZZ202H8420	P.W.Board, Assembly
PV00	1		WK202H2730	P.W.Board, Phono Input
	1		ZZ202H8730	P.W.Board, Assembly
PW00	1		WK202H2740	P.W.Board, Tape Input
	1		ZZ202H8740	P.W.Board, Assembly
PY00	1		WK202H1440	P.W.Board, Led Assembly
	1		ZZ202H8440	P.W.Board, Assembly